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Mr. John Courtis
California Environmental Protection Agency
Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Dear Mr. ~~Courtis~~ John:

Thank you for the ongoing assistance you have provided to Alberta and Canada to help improve our understanding of California's proposed Low Carbon Fuel Standard (LCFS). Given the upcoming release of the complete draft regulation on March 6, 2009, I would like to take this opportunity to highlight several points Alberta has made in our past discussions with the California Air Resource Board (CARB).

Both the Deputy Premier of Alberta and the Canadian Ambassador to the United States have written to Chairman Nichols, and the Deputy Minister of Natural Resources Canada recently travelled to California to meet with CARB officials. Today, less than a month from the release of the complete LCFS draft regulation, we are concerned that there are still several critical pieces of information missing which are integral to our understanding of how an LCFS will operate in practice. These include:

- treatment of cogeneration, carbon capture and storage (CCS) and quantification protocols for upstream reduction efforts;
- recognition of offsets undertaken outside California;
- method of determining the crude mix that California will use as a baseline;
- details surrounding the methodology used when determining fuel pathways and associated carbon intensities (CI); and
- the credit trading program structure.

As you know, Alberta is serious about managing carbon and has, in our view, comparable objectives to California in terms of long-term greenhouse gas (GHG) reductions. We have numerous policies in place that reflect this commitment, including a renewable fuel standard starting in 2010 (5% renewable fuel content in gasoline, and 2% renewable fuel content in diesel), existing legislation (the first of its kind in North America) requiring a 12% intensity improvement in CO_2 emissions for large emitters that encompasses many of Alberta's energy facilities, a $2 billion fund for CCS demonstrations and infrastructure, a fund of $239 million for bioenergy development, and an additional $2 billion commitment to support public transit.

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We believe there are several ways to achieve long-term carbon management objectives. California is proposing numerous tools including an LCFS. Alberta has taken another approach. Although our methods may differ, we firmly believe our carbon management objectives and outcomes should be compatible.

In terms of a generic LCFS, our view is that the objective is carbon management through the reduction of the life-cycle CI of transportation fuels in a manner that is fair and equitable to all fuels types, open and transparent to all participants, and predictable and stable to capital markets. With that in mind, there are a number of specific areas of the CARB LCFS proposal, as we understand it, that we would like to draw to your attention:

- An LCFS should not by design exclude or disadvantage any fuel type based on criteria other than science based life-cycle CI. If there is a policy intent to support infant energy industries, or take other non-CI related policies into account, more direct and separate approaches should be considered. Trying to do this within an LCFS may compromise the overall effectiveness, certainty, transparency and fairness of the standard.

- All transportation fuels should be encouraged to seek process improvements that achieve CI reductions and these actions should count towards meeting regulated fuel intensity levels. Although the development of new low carbon fuels is a laudable objective, we believe the most immediate and substantive carbon reductions can be achieved by process improvements to the fuel pathways of existing fuels. We are concerned that the current LCFS proposal will make it difficult for upstream reduction efforts to be undertaken, let alone accounted for in CI pathways.

- Fuel specific CI indexes should incorporate appropriate refining pathway assessments that are reflective of the crude type, and the pathway should be flexible enough to recognize (and hence promote) improvements like the introduction of CCS.

- Offsets should follow science based, established and recognized protocols, regardless of where they are applied. As part of our own carbon management framework, Alberta took great care to develop an offset market that was compatible with internationally recognized protocols, and credible offsets such as these should be recognized.

- In terms of how the base crude basket is determined, we believe identifying more than one basket to be inherently problematic, given the fungible nature of crude. A more workable solution is to have a single basket that includes all crudes, regardless of source, that makes use of a base year, and then index the desired CI of the transportation fuels to that year. As deemed necessary, CARB can then recalibrate the crude oil basket CI as required. Provided that all other aspects of the LCFS are science based (i.e. fair, transparent, open), the market will efficiently allocate resources to the fuels with the most potential to reduce carbon intensities.

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To expand upon the last bullet, we do not believe an approach other than a single crude basket is viable given the highly integrated nature of continental energy markets. CARB has previously stated that "crude shuffling" is not the desired outcome of their LCFS, however, energy markets have developed in a fashion that is highly conducive to the transportation and most effective allocation of energy commodities. For example, Alberta exports large quantities of natural gas to California of which a portion is used for power generation, which helps meet local and regional air quality requirements. If it was not exported, this natural gas could be used within the province to displace coal-fired generation. We believe that this may be one of the reasons why LCFS models that have been proposed elsewhere differ from the California model.

We strongly believe the above observations and suggestions will result in a fair, equal and transparent LCFS, and will promote California's overall goal of reducing the life-cycle GHG emissions associated with transportation fuels.

I would also like to bring to your attention that we expect the results of the two independent studies commissioned by the Alberta Energy Research Institute on the life-cycle GHG emissions associated with various crude pathways to be completed next month. Preliminary indication is that the CI of conventional crude oils, domestic and imported, is significant and in some cases comparable to heavy oil and oil sands derived crudes. This appears to apply for crudes that are water-flooded and are in deep formations. We expect that these studies will shed light on the need to consider the life-cycle analysis of all domestic and imported crudes in a fair and transparent manner regardless of source or initial perception.

I look forward to continuing to work with you.

Sincerely yours,

Christopher J. Holly
Branch Head
Research & Technology

cc: Dean Simeroth, CARB